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Muncy, Geissler, Olds & Lowe, PLLC 4000 Legato Road Suite 310 FAIRFAX, VA 22033			EXAMINER TOWNS, BRITTANY E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,728	Applicant(s) BARUSCHKE ET AL.	
	Examiner BRITTANY TOWNS	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, filed August 05, 2010, with respect to the rejections of claims 1-8, 10-12, and 14, 15, and 17 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ichishi et al in view of Hara et al.
2. Applicant's arguments, with respect to rejection of Claim 16 under 102(b) have been fully considered but the previous rejections stand.

Regarding Claim 16, the manual louver controls operated by a passenger which can determine the mode of the louvers of the air outlet. When the louver operation is not in an automatic mode, the manual mode can be reset to suitable range, so the control routine for the louvers of the air outlet have set positions that are taken into account when the passenger manual operates the louvers.

Amendments to the Claims

Applicant's Amendments to the Claims submitted on August 05, 2010 list the following:

Claim 1, 13, 16, and 17 as currently amended, Claims 2 and 18 as cancelled, Claim 3-12, 14-15 as previously presented, and Claims 19-24 as newly added.

Amendments to the Specification

Applicant submitted Amendments to the Specification on August 05, 2010.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Ichishi et al (U.S. Patent No. 6,347,987).

Regarding Claim 16, Ichishi et al discloses a vehicular air conditioner comprising an air conditioning electronic control unit to control a right-seat side air conditioning zone and a left seat side air conditioning zone independently for each other where the right and left side air conditioning zone each comprise a center face and side face air outlets that are controlled by

the air-blowing changing units based on the signals received from the sensors inputted into the air conditioning electronic control unit. The passenger can manual adjust the vent, however, the air-blowing changing state can take over or override. The manual input to control the air outlet the manual louver controls operated by a passenger which can determine the mode of the louvers of the air outlet. When the louver operation is not in an automatic mode, the manual mode can be reset to suitable range, so the control routine for the louvers of the air outlet have set positions that are taken into account when the passenger manual operates the louvers (*col. 14, lines 28-38*).

3. Claim 20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hara et al (JP07102775B). Primary reference Hara et al discloses all the elements of Claim 20 and 23.

Regarding Claim 20, Hara et al shows an air conditioner for a vehicle with air ports (14-17, *air vent*) which provides different blowout direction. Each air port includes deflecting plates and drive units (27-29) for actuating the deflecting plates. The deflecting plates perform a rocking range which defines the movement of the deflecting plates. The rocking range includes a narrow operation (*spot jet outflow*) and a large operation (*diffuse outflow*) of the deflecting plates. The narrow rocking range diffuses a focus, concentrated

air flow from the air port into the interior of the vehicle while the large rocking range produces a fan, wide air flow from the air port into the interior of the vehicle. The rocking range of the deflecting plates is actuated depending on the heat environment of the cabin of the vehicle using a sensor which detects room temperature. The sensor (30, *sensor*) and drive units (26-29, *actuator for controlling air jet*) are electronically connected to a controller (32) where the sensor sends a signal to the controller, where the controller sends a output signal to the drive units, which then actuates the deflecting plates in response to the reading of the sensor.

Regarding Claim 23, Hara et al discloses an air conditioner for a vehicle with air ports with deflecting plates which generate different rocking ranges depending on the input from a sensor placed inside the interior of the vehicle. The sensor inside the vehicle measures the room temperature of the vehicle.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a

person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1, 3-8, 10-12, 14-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichishi et al (U.S. Patent No. 6,347,987) in view of Hara et al (JP07102775B).

Regarding Claim 1, Ichishi et al discloses a vehicular air conditioner comprising an air conditioning electronic control unit (50) to control a right-seat side air conditioning zone and a left seat side air conditioning zone independently for each other where the right and left side air conditioning zone each comprise a center face and side face air outlets that are controlled by the air-blowing changing units based on the signals received from the sensors inputted into the air conditioning electronic control unit. The right-left louver swing mechanism of an air blowing changing unit can be automatically adjusted to a spot air outlet mode (*spot jet outflow*) or a wide air outlet mode (*diffuse outflow*) (*col. 19; Figures 23 and 24*).

However, the spot mode and wide mode do not automatically adjust when the sensor is sensing between two ranges of values.

Hara et al discloses an air conditioner for a vehicle with air ports (14-17, *air vent*) which provides different blowout direction. Each air port includes deflecting plates and drive units (27-29) for actuating the deflecting

plates. The deflecting plates perform a rocking range which defines the movement of the deflecting plates. The rocking range includes a narrow operation (*spot jet outflow*) and a large operation (*diffuse outflow*) of the deflecting plates. The narrow rocking range diffuses a focus, concentrated air flow from the air port into the interior of the vehicle while the large rocking range produces a fan, wide air flow from the air port into the interior of the vehicle. The rocking range of the deflecting plates is actuated depending on the heat environment of the cabin of the vehicle using a sensor which detects room temperature. The sensor (30) and drive units (26-29, *actuator for controlling air jet*) are electronically connected to a controller (32) where the sensor sends a signal to the controller, where the controller sends a output signal to the drive units, which then actuates the deflecting plates in response to the reading of the sensor.

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the air outlets with the louvers of Ichishi et al with the air ports with the deflecting plates which change air style depending on the range of temperature within a vehicle's cabin to improve the utility or performance of the air being distributed inside the vehicle since

occupants tend to want a certain air style depending on the temperature of the interior of the vehicle.

Regarding Claim 3, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle.

Regarding Claim 4, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The air flow volume can be adjusted by the air-blowing control unit (*Figure 17, col. 31*).

Regarding Claim 5, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The air flow speed can be adjusted by the air-blowing control unit (*Figure 17, col. 31*).

Regarding Claim 6, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The air outlet is in communication with the mixing door which mix a certain amount of cold air with a certain amount of hot air depending on the temperature parameter detected by the air outlet (*col. 10, line 48-col. 11, line 15*).

Regarding Claim 7, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The sensor is in the form of a temperature sensor.

Regarding Claim 8, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The humidity of an air flow is adjusted by the air-blowing control unit, col. 31, lines 24-39.

Regarding Claim 10, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control

unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The air-blowing unit is adjusted based on the skin temperature of an occupant, col. 9, lines 9-31.

Regarding Claim 11, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The air blowing changing units can operate based on the seat position, a seat shape and passenger state (*col. 13, line 66—col. 14, line 9*).

Regarding Claim 12, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-

blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. A sunlight sensor can be used to detect the amount of sunlight entering the passenger compartment of the vehicle (*col. 9, lines 9-31*).

Regarding Claim 14, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. The humidity of an air flow is adjusted by the air-blowing control unit (*col. 31, lines 24-39*).

Regarding Claim 15, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated

changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle. A right and left-blown air temperature sensors detects the right seat side and left seat side air conditioning zones (*col. 9, lines 8-31*).

Regarding Claim 17, Ichishi et al discloses a vehicular air conditioner comprising an air conditioning electronic control unit (50) to control a right-seat side air conditioning zone and a left seat side air conditioning zone independently for each other where the right and left side air conditioning zone each comprise a center face and side face air outlets that are controlled by the air-blowing changing units based on the signals received from the sensors inputted into the air conditioning electronic control unit. The right-left louver swing mechanism of an air blowing changing unit can be automatically adjusted to a spot air outlet mode (*spot jet outflow*) or a wide air outlet mode (*diffuse outflow*) (*col. 19; Figures 23 and 24*).

However, the spot mode and wide mode do not automatically adjust when the sensor is sensing between two ranges of values.

Hara et al discloses an air conditioner for a vehicle with air ports (14-17, *air vent*) which provides different blowout direction. Each air port

includes deflecting plates and drive units (27-29) for actuating the deflecting plates. The deflecting plates perform a rocking range which defines the movement of the deflecting plates. The rocking range includes a narrow operation (*spot jet outflow*) and a large operation (*diffuse outflow*) of the deflecting plates. The narrow rocking range diffuses a focus, concentrated air flow from the air port into the interior of the vehicle while the large rocking range produces a fan, wide air flow from the air port into the interior of the vehicle. The rocking range of the deflecting plates is actuated depending on the heat environment of the cabin of the vehicle using a sensor which detects room temperature. The sensor (30) and drive units (26-29, *actuator for controlling air jet*) are electronically connected to a controller (32) where the sensor sends a signal to the controller, where the controller sends a output signal to the drive units, which then actuates the deflecting plates in response to the reading of the sensor.

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the air outlets with the louvers of Ichishi et al with the air ports with the deflecting plates which change air style depending on the range of temperature within a vehicle's cabin to improve the utility or performance of the air being distributed inside the vehicle since

occupants tend to want a certain air style depending on the temperature of the interior of the vehicle.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichishi et al (U.S. Patent No. 6,347,987) in view of Hara et al (JP07102775B) in view of Nishino et al (U.S. Patent No. 5,297,988).

Regarding Claim 9, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle.

However, the air outlets of Ichishi et al do not add a fragrance to the air entering the passenger compartment of the vehicle.

Nishino et al discloses a fragrance supplying apparatus in communication with an air conditioner of a vehicle. The fragrance is emitted by the air outlet of the air conditioner (*col. 5, lines 17-30*).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the air outlets of Ichishi et al in

view of Hara et al with the air outlet of a fragrance supplying apparatus in communication with an air conditioner of Nishino et al to control an air outlet with dispensing a fragrance.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichishi et al (U.S. Patent No. 6,347,987) in view of Hara et al (JP07102775B) in view of Isobe et al (U.S. Patent No. 6,012,295).

Regarding Claim 13, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle.

However, the sensor group connected to the air conditioning electric control unit of Ichishi et al does not disclose a sensor that detects the status of the windows of a vehicle.

Isobe et al teaches an air conditioner for a vehicle. When the in an automatic mode, the status of the window (3) or door (3) being opened, the airflow coming from the outlet ports is adjusted (*col. 5, lines 16-35*).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the sensor group connected to the air conditioning electric control unit of Ichishi et al in view of Hara et al with the sensors for controlled the airflow amount of the outlet ports due to the position of a window or door of a vehicle to control the air outlets due to a positioning of a window to conserve energy.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al (JP07102775B) in view of Yoshinori et al (U.S. Patent No. 7,113,100).

Regarding Claim 19, Ichishi et al in view of Hara et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control face and side face air outlets that are controlled by the air-blowing changing units based on the inputs of a sensor which can actuated changing units to automatically adjust the air outlets between a spot mode and diffuse mode depending on the room temperature of the vehicle.

However, the

Yoshinori et al teaches a vehicle tiredness alleviating system for a driver of a vehicle. The venting of cool air is directed towards the driver depending on a tiredness degree calculated using either motion information or

bio information such as heartbeat. When a certain threshold is reached, the cool air will is perform at periods of time creating a blasting of air on the driver in order to alert the driver.

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the air conditioner of Ichishi et al in view of Hara et al with the vehicle tiredness alleviating system with a venting system which periodically blast cool air to the driver depending on the tiredness degree of Yoshinori et al to have the air outlet of the air conditioner to be used to keep drivers from drowsiness while driving which increases safety while driving.

8. Claim 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al (JP07102775B) in view of Isobe et al (U.S. Patent No. 6,012,295).

Regarding Claim 21, Hara et al discloses a vehicular air conditioner with air ports with deflecting plates with rocking ranges between a narrow operation and a large operation depending on the temperature range the sensor senses inside the interior of the vehicle.

However, the range does not disclose a status of a window.

Isobe et al teaches an air conditioner for a vehicle. When the in an automatic mode, the status of the window (3) or door (3) being opened, the airflow coming from the outlet ports is adjusted (*col. 5, lines 16-35*).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the sensor of Hara et al with the sensors for controlled the airflow amount of the outlet ports due to the position of a window or door of a vehicle to control the air outlets due to a positioning of a window to conserve energy.

Regarding Claim 22, Hara et al discloses a vehicular air conditioner with air ports with deflecting plates with rocking ranges between a narrow operation and a large operation depending on the temperature range the sensor senses inside the interior of the vehicle.

However, the range does not disclose a status of a sunroof.

Isobe et al teaches an air conditioner for a vehicle. When the in an automatic mode, the status of the window (3) or door (3) being opened, the airflow coming from the outlet ports is adjusted (*col. 5, lines 16-35*).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the sensor of Hara et al with the

sensors for controlled the airflow amount of the outlet ports due to the position of a window or door of a vehicle to control the air outlets due to a positioning of a window to conserve energy.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichishi et al (U.S. Patent No. 6,347,987) in view of Hara et al (JP07102775B) in view of Ichishi et al (U.S. Patent No. 6,347,987).

Regarding Claim 24, Hara et al discloses a vehicular air conditioner with air ports with deflecting plates with rocking ranges between a narrow operation and a large operation depending on the temperature range the sensor senses inside the interior of the vehicle.

However, the air port does not disclose a manual adjustment.

Ichishi et al teaches a vehicular air conditioner comprising an air conditioning electronic control unit to control a right-seat side air conditioning zone and a left seat side air conditioning zone independently for each other where the right and left side air conditioning zone each comprise a center face and side face air outlets that are controlled by the air-blowing changing units based on the signals received from the sensors inputted into the air conditioning electronic control unit. The manual input to control the air

outlet the manual louver controls operated by a passenger which can determine the mode of the louvers of the air outlet. When the louver operation is not in an automatic mode, the manual mode can be reset to suitable range, so the control routine for the louvers of the air outlet have set positions that are taken into account when the passenger manual operates the louvers (*col. 14, lines 28-38*).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the air port of Hara et al with the air outlet with a manual control of Ichishi et al to have the air port notice a manual control of the air style in order for the passenger to control which air style mode they desire and then set up positions according to the manual control.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRITTANY TOWNS whose telephone number is (571)270-1181. The examiner can normally be reached on Monday-Friday 7:30-5:00, 1st Friday in biweek off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. T./
Examiner, Art Unit 3749

/Kenneth B Rinehart/
Supervisory Patent Examiner, Art Unit 3743